

IN THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1-14 (Canceled).

15. (Original) A manufacturing process of a medical device, comprising:

forming semiconductor oxide layers on first and second semiconductor substrates;

etching the semiconductor oxide layer on the first semiconductor substrate in a tank region and a plurality of circle regions discretely arranged so as to form a mask of the semiconductor oxide layer;

wet etching the first semiconductor substrate with use of the mask of the semiconductor oxide layer;

forming a semiconductor oxide layer on the first semiconductor substrate exposed by the wet etching;

forming first and second thin layers of poly-lactic acid on the semiconductor oxide layers of the first and second semiconductor substrates, respectively;

laminating the first and second semiconductor substrates so that the first and second thin layers of poly-lactic acid are faced to each other;

etching the first and second semiconductor substrate, while leaving the semiconductor oxide layers of the first and second semiconductor substrates; and

etching the semiconductor oxide layers of the first and second semiconductor substrates, while leaving the first and second thin layers of poly-lactic acid.

16. (Original) A manufacturing process of a medical device, comprising:

forming a semiconductor oxide layer on a semiconductor substrate;

etching the semiconductor oxide layer on the semiconductor substrate in a tank region and a plurality of circle regions discretely arranged, except a bridge region extending therethrough so as to form a first mask of the semiconductor oxide layer;

wet etching the semiconductor substrate with use of the first mask of the semiconductor oxide layer;

forming a semiconductor oxide layer on the semiconductor substrate exposed by the wet etching;

forming a thin layer of poly-lactic acid on the semiconductor oxide layer;

forming a thin layer of a given material on the thin layer of poly-lactic acid;

etching the thin layer of the given material in a predetermined region so as to form a second mask of the given material;

etching the thin layer of poly-lactic acid with use of the second mask of the given material;

etching the semiconductor oxide layer with use of the second mask of the given material;

etching the semiconductor substrate, while leaving the semiconductor oxide layer;

etching the thin layer of the given material, while leaving the thin layer of poly-lactic acid; and

etching the semiconductor oxide layer, while leaving the thin layer of poly-lactic acid.

17. (Original) A manufacturing process of a medical device, comprising:

forming semiconductor oxide layers on first and second

semiconductor substrates;

etching the semiconductor oxide layer on the first semiconductor substrate in a tank region and an anchor region so as to form a mask of the semiconductor oxide layer;

ion-reactive etching the first semiconductor substrate with use of the mask of the semiconductor oxide layer;

forming a semiconductor oxide layer on the first semiconductor substrate exposed by the ion-reactive etching;

forming first and second thin layers of poly-lactic acid on the semiconductor oxide layers of the first and second semiconductor substrates, respectively;

laminating the first and second semiconductor substrates so that the first and second thin layers of poly-lactic acid are faced to each other;

etching the first and second semiconductor substrate, while leaving the semiconductor oxide layers of the first and second semiconductor substrates; and

etching the semiconductor oxide layers of the first and second semiconductor substrates, while leaving the first and second thin layers of poly-lactic acid.

18. (Original) A manufacturing process of a medical device, comprising:

forming a semiconductor oxide layer on a semiconductor substrate;

etching the semiconductor oxide layer on the semiconductor substrate in a tank region and an anchor region so as to form a mask of the semiconductor oxide layer;

ion-reactive etching the semiconductor substrate with use of the mask of the semiconductor oxide layer so as to form a recess on the semiconductor substrate in the tank region and the anchor region;

filling up the recess with a given melted material and curing the material so as to form a molding die of the given material;

forming a thin layer of poly-lactic acid encompassing the molding die;

forming an opening on the thin layer of poly-lactic acid to expose a portion of the molding die; and

etching the molding die of the given material, while leaving the thin layer of poly-lactic acid.

19. (Original) A manufacturing process of a medical device, comprising:

forming a semiconductor oxide layer on a semiconductor substrate;

etching the semiconductor oxide layer on the semiconductor substrate in an anchor region and a peripheral portion of a tank region so as to form a first mask of the semiconductor oxide layer;

ion-reactive etching the semiconductor substrate with use of the first mask of the semiconductor oxide layer so as to form a recess in the anchor region and the peripheral portion of the tank region;

filling up the recess with a melted poly-lactic acid so as to form a thin layer of poly-lactic acid;

forming a thin layer of a given material on the thin layer of poly-lactic acid;

etching the thin layer of the given material in a predetermined region so as to form a second mask of the given material;

etching the thin layer of poly-lactic acid with use of the second mask of the given material;

etching the semiconductor oxide layer with use of the second mask of the given material;

etching the semiconductor substrate, while leaving the semiconductor oxide layer;

etching the second mask of the given material, while leaving the thin layer of poly-lactic acid;

etching the semiconductor oxide layer, while leaving the

thin layer of poly-lactic acid so as to form a structure of poly-lactic acid that includes an opening in a region corresponding to the peripheral portion of the tank region; and

covering the opening of the structure of poly-lactic acid by a thin layer of poly-lactic acid.

20. (Original) A manufacturing process of a medical device, comprising:

forming a tank member of poly-lactic acid having a chamber capable of holding a medicament;

forming an anchor member of poly-lactic acid tapered toward to a tip thereof, and said anchor member having at least one protruding portion; and

connecting said anchor member with said tank member.

21. (Original) A manufacturing process of a medical device, comprising:

forming first and second recesses on first and second semiconductor substrates, respectively;

filling up the first and second recesses with a given material and curing the material;

etching the first and second semiconductor substrates, while leaving the semiconductor oxide layer so as to form first and second molding dice of the given material;

filling up a die recess of the first molding die with melted poly-lactic acid;

inserting the second molding die into the die recess of the first molding die;

etching first and second molding dice of the given material, while leaving poly-lactic acid therebetween so as to form a plurality of tank members; and

attaching an anchor member to at least one of the tank members.

22. (Original) A manufacturing process of a medical device, comprising:

forming first and second semiconductor oxide layers on first and second semiconductor substrates, respectively;

etching the first semiconductor oxide layer on the first semiconductor substrate to form a mask of the first semiconductor oxide layer;

wet etching the first semiconductor substrate with use of the mask of the first semiconductor oxide layer;

forming a semiconductor oxide on the first semiconductor substrate exposed by the wet etching;

forming first and second thin layers of poly-lactic acid on the semiconductor oxide layers of the first and second semiconductor substrates, respectively;

laminating the first and second semiconductor substrates so that the first and second thin layers of poly-lactic acid are faced to each other;

etching the first and second semiconductor substrate, while leaving the semiconductor oxide layers of the first and second semiconductor substrates; and

etching the semiconductor oxide layers of the first and second semiconductor substrates, while leaving the first and second thin layers of poly-lactic acid.

23. (Original) A manufacturing process of a medical device, comprising:

forming a semiconductor oxide layer on a semiconductor substrate;

etching the semiconductor oxide layer on the semiconductor substrate in a predetermined mask region so as to form a mask of the semiconductor oxide layer;

wet etching the semiconductor substrate with use of the mask of the semiconductor oxide layer so as to form a recess in the predetermined region;

filling up the recess with a melted give material and

curing the material so as to form a molding die of the given material;

forming a thin layer of poly-lactic acid encompassing the molding die;

forming an opening on the thin layer of poly-lactic acid to expose a portion of the molding die; and

etching the molding die of the given material, while leaving the thin layer of poly-lactic acid.

24. (Currently Amended) The manufacturing process according to Claim 22-~~or 23~~,

wherein the mask region is defined by sides inclined to a <100> orientation of the semiconductor substrate at an angle of substantially $(\pi/2 - \arctan(\sqrt{2}))$.

25. (Currently amended) The manufacturing process according to Claim 16, ~~19, 21, or 23,~~

wherein the given material is aluminum.

26. (New) A medical device, comprising:

a tank member of biodegradable material having a chamber;
and

at least one anchor member of biodegradable material extending from said tank member;

wherein said anchor member has a configuration combining a plurality of protruding portions, each of which outline is a partial quadrangular pyramid having sides different from one another.

27. (New) A medical device, comprising:

a plurality of tank members of biodegradable material, each of said tank members having a chamber;

a connector member of biodegradable material connecting adjacent tank members;

a cap member arranged on said connector member for

hermetically sealing each of said tank members; and

at least one anchor member of biodegradable material extending from said tank member;

wherein said anchor member has a configuration combining a plurality of protruding portions, each of which outline is a partial quadrangular pyramid having sides different from one another.

28. (New) A medical device, comprising:

an anchor member of biodegradable material having a chamber;

wherein said anchor member has a configuration combining a plurality of protruding portions, each of which outline is a partial quadrangular pyramid having sides different from one another.

29. (New) A medical device, comprising:

a tank member of biodegradable material containing a medicament therein; and

at least one anchor member of biodegradable material extending from said tank member;

wherein said anchor member has a configuration combining a plurality of protruding portions, each of which outline is a partial quadrangular pyramid having sides different from one another.

30. (New) A medical device, comprising:

an anchor member of biodegradable material containing a medicament; and

wherein said anchor member has a configuration combining a plurality of protruding portions, each of which outline is a partial quadrangular pyramid having sides different from one another.

31. (New) A medical device, comprising:

an anchor member of biodegradable material having a tip tapered at one end in a longitudinal direction, and a mass of a medicament attached at the other end;

wherein said anchor member has a configuration combining a plurality of protruding portions, each of which outline is a partial quadrangular pyramid having sides different from one another.

32. (New) A medical device, comprising:

an anchor member of biodegradable material having a chamber;

wherein said anchor member has both ends tapered in a longitudinal direction, and has at least one protruding portion extending therefrom.

33. (New) The medical device according to Claim 32,

wherein the protruding portion extends towards a direction inclined to the longitudinal direction towards the tip at an obtuse angle.

34. (New) The medical device according to Claim 26,

wherein the biodegradable material is selected from a group consisting of poly-lactic acid, glue, starch, protein, and glucose.

35. (New) The medical device according to Claim 26,

wherein said anchor member has a channel in fluid communication with the chamber of said tank member.

36. (New) The medical device according to Claim 26, further comprising a plurality of said anchor members extending from said tank member towards different directions.

37. (New) The medical device according to Claim 26, further comprising a plurality of said anchor members

extending from said tank member towards same directions.

38. (New) The medical device according to Claim 28,
wherein the tip of said anchor member is tapered as
viewing in top plan and cross sectional views.